



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,097	01/16/2004	Shen Dar-Tson	33900/US	7398

7590 10/17/2005

Min (Amy) S. Xu  
DORSEY & WHITNEY LLP  
Intellectual Property Department  
50 South Sixth Street, Suite 1500  
Minneapolis, MN 55402-1498

EXAMINER
----------

PRITCHETT, JOSHUA L

ART UNIT	PAPER NUMBER
----------	--------------

2872

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/760,097

Applicant(s)

DAR-TSON, SHEN

Examiner

Joshua L. Pritchett

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This action is in response to Amendment after non-final rejection filed August 26, 2005.

Claim 1 has been amended as requested by the applicant.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kung (US 2003/0184858) in view of Nakamoto (US 5,121,220).

Regarding claim 1, Kung teaches a flip-flop diagonal with variable viewing angles, comprises a housing body (410), an eyepiece adapter (430) and a reflective mirror (120) characterized in that, the housing body has a cylindrical sleeve for mounted the diagonal to a telescope (Fig. 8), the eyepiece adapter unit includes an eyepiece adapter and an eyepiece support frame, the eyepiece adapter (440) is fixed on the eyepiece support frame (414; Fig. 8), the reflective mirror unit includes a reflective mirror (120), a mirror support bracket (121) and rotary shafts (132) the reflective mirror is mounted in the mirror support bracket (Fig. 2) and the

Art Unit: 2872

mirror support bracket is pivotally mounted to the eyepiece support frame through the rotary shafts (Fig. 2). Kung further teaches the eyepiece adapter (430) is capable for changing the view angle by rotating the eyepiece adapter to different positions (para. 0046). Kung lacks reference to the eyepiece support frame being pivotal to the housing body. Nakamoto teaches the use of a diagonal with a pivoting eyepiece support frame (Fig. 11). Fig. 11 shows that the eyepiece support frame (22) rotates relative to the housing body (17) and also shows that eyepieces (24-26) can rotate relative to the eyepiece adapter. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the Kung invention include the rotating eyepiece support frame of Nakamoto for the purpose of increasing the number of viewing angles of the Kung invention.

Regarding claims 2 and 9, Kung teaches the invention as claimed but lacks reference to the use of a spring. Nakamoto teaches the use of a spring (44) for elastically connecting the eyepiece support frame (22) to the mirror support bracket (43; Fig. 10). Nakamoto further teaches the mirror support bracket and the eyepiece support frame rotate coaxially, the rotation angle of the mirror support bracket is one half of that of the eyepiece support frame (Fig. 5). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the Kung invention include the Nakamoto spring for the purpose of biasing the reflective mirror into a certain position.

Regarding claim 3, Kung teaches the housing body includes a seat body (116, 117) and upper cover plate (111) and a side cover plate (112), the seat body is connected to the side cover plate, and the upper cover plate is connected to the eyepiece support frame (Fig. 2).

Art Unit: 2872

Regarding claim 5, Kung teaches another transmission and limiting fixture (115) including a notch on the housing body and the eyepiece support frame (Fig. 2).


Regarding claim 6, Kung teaches an anchoring fixture, the anchoring fixture is provided between the eyepiece support frame and the housing body and includes a steel ball and an anchoring hole (Fig. 2). Fig. 2 shows a screw, which can be considered a steel ball because of its curved outer surface and an anchoring hole to accept the screw.

Regarding claim 7, Kung teaches a locking fixture including a hand knob (130), which is screwed to the rotary shaft (Fig. 2).

Regarding claim 8, Kung teaches the rotary shaft is located on the reflecting surface of the reflective mirror and intersects the axis of the telescope and the eyepiece (Figs. 2 and 8).

Regarding claim 10, Kung teaches the eyepiece adapter unit can be pivoted to an angle of 45-degrees or 90-degrees with respect to the axis of the telescope (Figs. 5 and 6).

Claim 4 is

 ~~Claim 4~~ rejected under 35 U.S.C. 103(a) as being unpatentable over Kung (US 2003/0184858) in view of Nakamoto (US 5,121,220) as applied to claim 1 above, and further in view of Lee (US 6,542,297).

Kung in combination with Nakamoto teaches the invention as claimed but lacks reference to an arc groove in the sidewall. Lee teaches a transmission and limiting fixture including a first arc groove (16) provided on the sidewall of the housing body, a second arc groove provided on the eyepiece support frame and a restricting shaft (24) provided on the mirror support bracket (22; Fig. 2). It would have been obvious to one of ordinary skill in the art at the time the

Art Unit: 2872

invention was made to have the Kung invention include the arc grooves of Lee for the purpose of restricting the motion of the reflective mirror.

### *Response to Arguments*

Applicant's arguments filed August 26, 2005 have been fully considered but they are not persuasive.

Applicant argues that Kung fails to teach variable viewing angles. The term “variable viewing angles” does not limit the claim to a continuous spectrum of angles only that the viewing angle must be capable of variance. The Kung reference teaches the viewing angle can vary between 0-degrees and 90-degrees and therefore satisfies the claim limitation of variable viewing angles.

Applicant argues that the Kung reflector is not capable of changing the viewing angle by rotating the eyepiece adapter. In response to the applicant's amendment to claim 1 the eyepiece adapter has been renumbered to element 430 of the Kung reference. Kung explains that rotating the element 430 rotates the mirror within and thereby changes the viewing angle (para. 0046).

Applicant argues that Nakamoto fails to teach the claimed eyepiece adapter. Kung teaches this limitation as stated in the rejection above.

### *Conclusion*

Art Unit: 2872

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

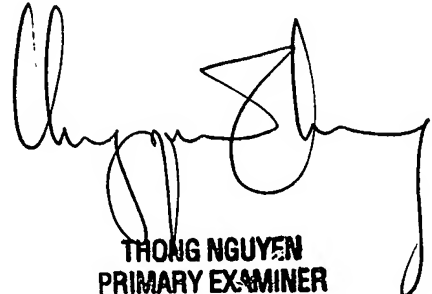
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2872

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLP



**THONG NGUYEN  
PRIMARY EXAMINER  
GROUP 2800**